

September 16, 2003

Ms. Katie Patterson  
Marathon Ashland Petroleum LLC  
Indianapolis, IN Asphalt Terminal  
255 North Belmont Avenue  
Indianapolis, IN 46222

Re: Registered Construction and Operation Status, R097-15868-00372

Dear Ms. Patterson:

The application from Marathon Ashland Petroleum LLC, received on July 16, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following emission units, located at 255 North Belmont Avenue, Indianapolis, Indiana, are classified as registered:

- (a) One (1) natural gas fired boiler, constructed in January of 1990, identified as B-001, with a maximum heat input of 14.6 million British thermal units per hour (MM Btu/hr), and
- (b) One (1) natural gas boiler, constructed in January of 1990, identified as B-002, with a maximum heat input capacity of 22.7 MM Btu/hr,
- (c) One (1) asphalt cement emulsion batch mixer, constructed in January 1990, with a production capacity of 16.4 tons per hour (previously exempt),
- (d) One (1) bulk storage tank for asphalt cement, constructed in 1990, identified as 24-5, with an asphalt cement output of 220,000 pounds per hour (previously exempt).

The following conditions shall be applicable:

- 1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- 2. Pursuant to 40 CFR 60, Subpart Dc, and 326 IAC 12, the Permittee is required to record and maintain records of the amount and type of fuel combusted each day.
- 3. Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations) the PM emissions from the 22.7 and 14.6 MM Btu/hr boilers identified as B-001 and B-002 shall be limited to 0.43 pounds per MMBtu heat input.

This limitation is based on the following equation:

$Pt = 1.09 / Q^{0.26}$  where Pt = Pounds of particulate matter emitted per million Btu heat input  
Q = total source maximum operation capacity rating in million Btu per hour heat input

4. Pursuant to 40 CFR 60, Subpart Kb, and 326 IAC 12, the Permittee is required to keep readily accessible records showing the dimension and capacity of each tank.

This registration supersedes all existing approvals issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality and Office of Environmental Services that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Branch  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015

and

City of Indianapolis  
Office of Environmental Services  
2700 South Belmont Avenue  
Indianapolis, Indiana 46221

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and the City of Indianapolis, Office of Environmental Services (OES) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Originally signed by John B. Chavez

John B. Chavez  
Administrator

HMS

cc: File - Marion County  
Permits - Holly M. Stockrahm  
Compliance - Matt Mosier  
OAQ - Mindy Hahn

<b>Registration Annual Notification</b>
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This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

<b>Company Name:</b>	<b>Marathon Ashland Petroleum LLC</b>
<b>Address:</b>	<b>255 North Belmont Avenue</b>
<b>City:</b>	<b>Indianapolis, Indiana 46222</b>
<b>Authorized individual:</b>	<b>Katie Patterson</b>
<b>Phone #:</b>	<b>(419) 421-4209</b>
<b>Registration #:</b>	<b>097-15868-00372</b>

I hereby certify that Marathon Ashland Petroleum LLC is still in operation and is in compliance with the requirements of Registration 097-15868-00372.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

## **Indianapolis Office of Environmental Services**

and

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Registration**

#### **Source Background and Description**

Source Name:	Marathon Ashland Petroleum LLC
Source Location:	255 North Belmont Avenue, Indianapolis, IN 46222
County:	Marion
Registration No.:	R097-15868-00372
SIC Code:	5171, 2951
Permit Reviewer:	Holly M. Stockrahm

The Office of Air Quality (OAQ) and Office of Environmental Service (OES) have reviewed an application from Marathon Ashland Petroleum LLC relating to the operation of an asphalt terminal.

#### **Unpermitted Emission Units and Pollution Control Equipment**

- (a) One (1) natural gas fired boiler, constructed in January of 1990, identified as B-001, with a maximum heat input of 14.6 million British thermal units per hour (MM Btu/hr), and
- (b) One (1) natural gas boiler, constructed in January of 1990, identified as B-002, with a maximum heat input capacity of 22.7 MM Btu/hr,
- (c) One (1) asphalt cement emulsion batch mixer, constructed in January 1990, with a production capacity of 16.4 tons per hour (previously exempt),
- (d) One (1) bulk storage tank for asphalt cement, constructed in 1990, with an asphalt cement output of 220,000 pounds per hour (previously exempt).

#### **New Emission Units and Pollution Control Equipment**

There are no new construction activities included in this permit.

#### **Existing Approvals**

The source has received an exemption E097-11669-00159, issued on February 25, 2000, for bulk storage tanks, identified as T-25, T-26, T-27, T-28. Tanks T-25 and T-26 each have a storage capacity of 168,000 gallons of polymerized asphalt cement, and tanks T-27 and T-28 each have a storage capacity of 42,000 gallons of asphalt cement.

#### **Enforcement Issue**

- (a) IDEM and OES are aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document

under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.

- (b) IDEM and OES are reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 16, 2002.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, page 1 through 2). The asphalt emulsion is a mixture of #2 fuel oil, asphalt cement, water, and additives, therefore, the VOC and PM emissions from the mixing tank 24-5 is negligible.

### Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

This table reflects the PTE before controls for the new emission units. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.3
PM-10	1.2
SO <sub>2</sub>	0.1
VOC	0.9
CO	13.7
NO <sub>x</sub>	16.3

  

HAP's	Potential To Emit (tons/year)
combined	less than 1
Total	less than 1

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a

combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

- (c) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (d) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of NO<sub>x</sub> is greater than level listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.5.1 (Registration).
- (e) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Maintenance Attainment
NO <sub>2</sub>	Attainment
Ozone	Maintenance Attainment
CO	Maintenance Attainment
Lead	Maintenance Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, and 326 IAC 2-3, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.3
PM10	1.2
SO <sub>2</sub>	0.1
VOC	0.9
CO	13.7
NO <sub>x</sub>	16.3

This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not in one of the 28 listed source categories.

#### Part 70 Permit Determination

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This registration supersedes all existing approvals issued to this source.

#### Federal Rule Applicability

- (a) New Source Performance Standards (NSPS):
  - (1) The New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60, Subpart Dc) is applicable to the boilers, B-001 and B-002, because they were constructed after June 9, 1989, and each have a maximum design heat input capacity between 10 and 100 MM Btu/hr. Pursuant to 40 CFR 60, Subpart Dc, and 326 IAC 12, the Permittee is required to record and maintain records of the amount and type of fuel combusted each day.
  - (2) The New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60, Subpart Kb) is applicable to the tanks, T-25, T-26, T-27, and T-28, because they were constructed after July 23, 1984, and have capacities greater than 10,567 gallons. Pursuant to 40 CFR 60, Subpart Kb, and 326 IAC 12, the Permittee is required to keep readily accessible records showing the dimension and capacity of each tank.
- (a) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to these boilers.

#### State Rule Applicability - Entire Source

##### 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source was constructed in 1990. The source is not in 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and has the potential to emit any regulated pollutant before control less than two

hundred and fifty (250) tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable.

**326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)**

The boilers were constructed prior to July 27, 1997 and the HAP emissions from the entire source are less than the major source thresholds. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

**326 IAC 2-6 (Emission Reporting)**

This source is located in Marion County and the potential to emit of NO<sub>x</sub> are greater than ten (10) tons per year. Therefore, 326 IAC 2-6-1(a) does apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)**

326 IAC 8-4-3(Petroleum Liquid Storage Facilities) does not apply to the asphalt storage tanks, 25, 26, 27, and 28, because although their capacities are greater than 39,000 gallons, the true vapor pressure of the tank contents is less than 10.5 kPa (1.52 psi). These tanks contain asphalt cement which has a true vapor pressure of 1.93-07 psi at 300 degrees Fahrenheit.

**State Rule Applicability - Two (2) boilers**

**326 IAC 6-1-2 (Particulate Emission Limitations)**

The non attainment area limitations does not apply even though this source is located in a count listed under 326 IAC 6-1-1(a), because the source does not have potential emissions greater than one hundred (100) tons per year or actual emissions greater than ten (10) tons per year.

**326 IAC 6-2-4 (Emission Limitations)**

326 IAC 6-2-4 does apply to the 14.6 and 22.7 MM Btu per hour Boilers, B-001 and B-002, because they were constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations) the particulate emissions from the boilers identified as B-001 and B-002 shall be limited to 0.43 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = 1.09 / Q^{0.26}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input  
Q = total source maximum operation capacity rating in million Btu per hour heat input

The boiler combusts natural gas, therefore, the particulate emissions are negligible. The boilers will comply.



**326 IAC 6-3-2 (Manufacturing Processes)**

326 IAC 6-3-2 does not apply to natural gas combustion devices, therefore, this rule does not apply to the boilers, B-001 or B-002.

**Conclusion**

The operation of the asphalt terminal shall be subject to the conditions of the attached proposed Registration 097-15868-00372.

**Appendix A: Emissions Calculations****Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****Company Name: Marathon Ashland Petroleum LLC****Address City IN Zip: 255 North Belmont, Indianapolis, IN 46222****CP: R097-15868-00372****Pit ID: 097-00372****Reviewer: Holly M. Stockrahm****Date: July 15, 2003**Heat Input Capacity  
MMBtu/hrPotential Throughput  
MMCF/yr

37.3

326.7

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.3	1.2	0.1	16.3	0.9	13.7

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**

Page 2 of 2 TSD App A

**Natural Gas Combustion Only****MM BTU/HR <100****Small Industrial Boiler****HAPs Emissions****Company Name: Marathon Ashland Petroleum LLC****Address City IN Zip: 255 North Belmont, Indianapolis, IN 46222****CP: R097-15868-00372****Pit ID: 097-00372****Reviewer: Holly M. Stockrahm****Date: July 15, 2003****HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.431E-04	1.960E-04	1.225E-02	2.941E-01	5.555E-04

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.169E-05	1.797E-04	2.287E-04	6.208E-05	3.431E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.  
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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updated 4/99